QC-9 Revised 12/1/2004

# North Carolina Department of Transportation

*QC Random Sample Worksheet*

Contractor _____[ 1 ]_____ Plant Location _____[ 2 ]_____ Mix Type _____[ 3 ]_____ Mix Design No. _____[ 4 ]_____

| Today's Date | Projected Tonnage | Sample Number | Random Number (A) | Increment Tons (B) | C = A x B (C) | Previous Increment Tons (D) | Sample Tonnage E = D + C (E) | End of Last Day's Tonnage (F) | Tons to Today's 1st Sample * G = E - F (G) | Date Sample Taken (H) | Accum. Tonnage @ End of Today (I) | **QC Technician signature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [ 5 ] | [ 6 ] | [ 7 ] | [ 8 ] | [ 9 ] | [ 10 ] | [ 11 ] | [ 12 ] | [ 13 ] | [ 14 ] | [ 15 ] | [ 16 ] | [ 17 ] |
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* If the next regularly scheduled sample tonnage for an increment is not reached, this will be the tonnage remaining from the end of the last day's tonnage to the first sample tonnage the next production day.

NOTE: This form to be completed and faxed to appropriate QA Supervisor prior to production of each mix design each day. Original maintained at QC Lab.

** By providing this data under my signature and/or HICAMS certification number, I attest to the accuracy and validity of the data contained on this form and certify that no deliberate misrepresentation of test results, in any manner, has occurred.

# ***QC-9***

## QC RANDOM MIX SAMPLE LOCATION WORKSHEET

**GENERAL NOTE:** This form will be used by QC personnel to calculate all regularly scheduled random sample locations for each mix design at a plant site for a calendar year's production. A new form, beginning with zero accumulated tonnage, will start over each calendar year. A separate form must be used for different mix designs. Random samples for different job mix formula numbers based on the same mix design may be entered on a single form. All tonnage produced, including partial test samples, must be reported to the nearest whole ton on this form. QC technicians shall determine the regularly scheduled random sample location of each 750 ton increment prior to beginning production of that increment. The regular scheduled sample for the current increment shall be taken before determining the next increment's random sample location. The only acceptable method of determining random numbers is by the use of ASTM D3665, Alternative 2, Table 1, in this manual. This form shall be faxed to the appropriate QA Lab prior to production of each mix design each day. Original is retained in QC Lab files for review by QA personnel for a minimum of three (3) years after last sample date entered on each form.

1. Contractor producing mix.
2. Asphalt plant location or site.
3. Type of mix being produced.
4. Mix design number (only one MD number per form).
5. Date of this entry.
6. Number of tons of this mix that Contractor anticipates producing this date.
7. Sequential sample number for mix design being produced.
   a. Full Test Series: First two digits will be last two nos. of the current year followed by a dash (-), followed by a sequential no. beginning with one and progressing up as samples are taken.
   b. Partial Test Series (taken after 100 tons daily if regular sample is not reached): Will be same no. as the full test series no. for that increment, except will be followed by the suffix P1, P2, P3, etc.
8. Random number QC Technician obtains from ASTM D3665 Random Numbers Tables or from the NCDOT's computer spreadsheet program.
9. Increment tonnage (Normally will always be 750 tons).
10. Increment tons times random number.
11. Ending tonnage of previous increment from which sample was taken (Should normally be the end of a 750 ton increment; such as: 0, 750, 1500, 2250, 3000, etc.).
12. Calculated accumulated tonnage at which sample should be taken. Sample should be taken within the same truckload as this calculated tonnage.
13. Accumulated yearly tonnage of this mix design for this plant at the end of the last production day prior to this day's production.
14. If the next regularly scheduled sample tonnage for an increment is not reached, this will be the tonnage remaining from the end of the last day's production to the first sample tonnage the next production day.
15. Date the QC sample (full and/or partial) was actually taken.
16. Accumulated yearly tonnage of this mix design for this plant at the end of date of entry. This blank will only be completed for the last sample entered each day. It then will be transferred to Column (F) for the next production day. Each new calendar year's accumulated tonnage resets to zero.
17. Signature of QC Technician determining random sample tonnage location and certifying that the data entered on this form is true and correct.